Idaho Technology Pilot Grant

Legislative Report Template

Please fill out the following information

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Purpose of Legislative Report

Because the intent of these legislative funds is to promote a scalable and sustainable model of technology learning initiative in Idaho, awardees will be required to submit periodic evaluation updates and yearly reports to the State Department of Education and the Idaho Legislature. It is expected that grantees will be available for scheduled site visits throughout the project from educational stakeholders.

Furthermore, in an effort to provide a display of best practices of technology integration processes, pedagogy, professional development and leadership, awardees will be required to provide a final dissemination report and video. Specific details regarding the requirements and length will be provided to awardees as the pilot grant project moves forward into Fiscal Year 2014. Reports will be submitted by

grantees January 2014, June 2014, and December 2014.

Examples of Measurements

Examples of measurements for grantees to accumulate and report on include, but are not limited to the following:

- Student and teacher attendance
- Teacher attitude and retention
- Teacher evaluations
- Student discipline
- Student graduation/dropout rates
- Student participation
- Student surveys, measuring what students think and believe
- Fiscal and academic measurements of paperless environments
- Efficiencies documented throughout the project
- Project cost over time
- Recurring school and classroom trend and assessment data
- Student achievement in reading, science, and math
- Advanced learning opportunities for all students

Topics to be Included Within Legislative Report

Within the subheadings below, please provide information, feedback, and data (where possible) on the following items:

1. Retrospective summary since grant was awarded
2. Initial obstacles to overcome
3. Baseline student achievement data, as per project proposal
4. Other baseline quantitative data collected
5. Professional development/teacher discourse
6. Device rollout
7. Student discipline/digital citizenship
8. Fiscal savings/budget update
9. Next steps/project revisions

Retrospective Summary

It is essential that regular and ongoing professional development be one of the highest priorities for our district. Some of the administration initially felt that most of the professional development could be accomplished in the beginning of the project. However, this is not best practice. The more teachers understand and feel comfortable using the device, the more it has the potential to impact student learning. Thus, regular training will help keep teachers excited about implementation and regular utilization with the devices. Even if teachers are experienced with the use of technology, they can still do a better job using technology to increase student technology levels.

The community "buy-in" with this project has been exceptional. We have established and maintained regular communication with the parents from the very beginning. We also provided parent meetings for the purpose of educating parents on the capabilities of the devices. Parents have been supportive and appreciative of this effort.

Our paradigm shifted as the project developed from a "class-set" model to a true 1:1 model with devices travelling home with students. The security and safety concerns presented by devices leaving the district network caused much additional discussion and planning for control of the devices.

Delays aside, the rollout has been extremely successful with no major issues after the devices were assigned to students. Students have developed a high level of personal ownership and care for their devices very well. They realize that having a personal device is a privilege and are grateful to have the opportunity to have a device for their educational purposes.

Initial Obstacles to Overcome

Wireless infrastructure

Wireless access point density required for high quality service is much greater than anticipated. Apple devices are digitally "chatty" and use significant Internet and local bandwidth. Enterprise-grade centrally managed wireless solution is highly recommended.

ENA Air has since been implemented as part of the statewide contract for high school wireless service. Connectivity in high-device-density classrooms has increased significantly. The Internet was faster and increased productivity in classrooms.

Deployment

Apple's deployment solution is called Apple Configurator. This free software is the cornerstone of a successful device rollout because it allows rapid configuration and update of up to 30 devices at once. However, Configurator remains underdeveloped and lacks many features that would streamline deployment for large organizations in every sector.

Mobile Device Management

Apple has transferred responsibility for MDM to third-party providers by providing a framework within their operating system which can be easily tapped by developers. Unfortunately, many of Apple's consumer-centric paradigms inhibit the granular control large organizations desire.

Remote Filtering

Although it may not be a district's responsibility to provide web-filtering services for devices inside student's homes, the district feels it is cost-effective to provide the benefits of this service to parents. ***Internet safety is a significant local concern; remote filtering assists in building community support for the project.***

Accessing Inappropriate Content

Much to our dismay, on the rare occasion, students can still access inappropriate content. Filters are not perfect and often can't tell the difference between appropriate and inappropriate content. Sometimes when we had to tighten the filter down so much to eliminate students from accessing inappropriate content, it also filtered out applications that were contributing to student learning. This aspect is getting better, but it is often one of the most frustrating parts of a 1:1 deployment.

Curriculum Integration

Significant teacher energy is required to guide devices into the mold of a tool and away from the tendency toward entertainment. The digital tools available are invaluable. Maps and encyclopedias are enhancing geography; online dictionaries are helping students read and write, and science apps take students on personalized journeys through the cell. ***Unrestricted devices and undisciplined students are both significant threats to successful implementation, but the devices fit well within and enhance existing curriculum***. As Common Core standards are implemented, teachers are seeing more and more opportunity to integrate various computer programs into their curriculum. We are also finding Open Source materials that are on line and aligned to Idaho Core standards.

Baseline Student Achievement Data

This is from our band teacher. "The use of the i-Pad aided my sixth grade band in several ways. First I was able to use them to get past the stumbling blocks that many students struggle with of reading the music by learning the basics of music theory. This was accomplished by using the app Tenuto, which is basically electronic flashcards giving the students the repetition they need to learn music theory skills. Second we were able to record the students playing so they could hear themselves play and make the necessary adjustments to make a better tone. And last I was able to use the Smart Music app which aided the students in practicing and proved to be a viable way to assess them. The students had four tests on Smart Music each quarter and they had to pass each test in sequential order with a 90% or better. The students would play their instrument into their iPad microphone and Smart Music would grade them and tell them what they did wrong so they could fix it. This freed up a lot of my time because I didn't have to use class time to perform their tests, I didn't have to spend the countless hours listening to and grading their tests, and the students were practicing at home. The result was the students were able to go twice as far as my previous band classes. Since I only have them for a semester I was able to get them through a year's worth of curriculum. The iPads were definitely a useful tool in my classroom this past year that pushed the students further then was thought achievable."

Other Baseline Quantitative Data

Quantitative Data

- 71% of the students agree or strongly agree that the use of an iPad will help them be better prepared for college.
- 60% of the students agree or strongly agree that use of an iPad will help them achieve at a higher academic level.
- 66% of the students agree or strongly agree that use of an iPad will make their communication more efficient with teachers, friends, and family.
- 86% of the students agree or strongly agree that they can use the iPad without the help of a teacher.
- 68% of the students agree or strongly agree that they would prefer an eBook (electronic textbook) instead of a printed book.
- 80% of the students agree or strongly agree that they would prefer an iPad over a laptop.

Prior to having iPads, 41% of our students utilized technology at least 3 days a week outside of a school for school-related purposes. Since deploying iPads to every student, 64% of our students use technology at least 3 days a week outside of a school for school related purposes.

Professional Development/Teacher Discourse

It is important to note that we chose to write the grant for Beutler Middle School because the faculty had a better understanding of technology compared to the other schools in our district. However, this did not eliminate the need for additional and ongoing professional development. In fact, more professional development was needed than anticipated; thus supporting our premise for sustained on-going professional development.

Representatives from iKeepSafe educated teachers about devices and their safety features. During this training representatives discussed proper protocol to follow if the devices were ever used inappropriately. As a faculty, we role played specific scenarios that may occur throughout the course of the school year. This was especially helpful as it taught the faculty how to handle scenarios in a uniform and consistent manner.

Canvas training for teachers. The district recently purchased a learning management system called Canvas. Canvas provides a way for teachers to organize and store all digital content. When an assessment is created in Canvas by a teacher and then taken by a student, it will automatically grade assessments and import the results directly to PowerSchool for stakeholder review. This is another thing that iPads are making the job for teachers easy.

Technology Integration Specialist
There is a fundamental difference between making devices usable and actual proper utilization in the classroom. One particularly tech-savvy and innovative teacher was chosen to

spearhead training and professional development efforts. This has proved to be invaluable especially in shifting these responsibilities away from IT personnel who do not have the educational background to deal with curriculum integration and classroom implementation of devices. Our Technology Integration Specialist has been an invaluable resource, and our teachers have responded in a positive manner and welcome support and on-going training.

Device Rollout

Rollout (meaning devices going home with students) was delayed due to technical difficulties and learning curve for IT staff. We underestimated the level of learning and experimentation that would be necessary to deploy the devices. Also, this technology is so cutting edge that the vendor (Apple) is still adjusting to large-scale adoption of their devices. A major update to the core iPad software (iOS 7) was released mid-project which also caused some delay. Significant time is consumed by downloads and application transfers.

Devices were returned by students for summer break. We have been able to collect fees from parents to cover missing accessories, broken screens and lost devices. Protective cases have been an issue. Investing in high-quality ruggedized cases is highly recommended.

Student Discipline/Digital Citizenship

An essential part of our grant was funding for a company called iKeepSafe. iKeepSafe has a plethora of resources and specializes in digital citizenship. They are absolute masters in educating parents, students, and school leaders.

For two days, Beutler Middle School had two representatives from this organization on our campus. While they were here, they taught every student specific aspects on digital citizenship for two class periods. During this meeting students were taught the following principles:
- Appropriate actions dealing with online bullies.
- Staying safe while being online such as not giving out personal data and knowing with whom you are sharing information.
- Guidelines for posting video and written content online.
- Creating strong passwords that are not easily accessed by others attempting to hack their accounts.
- Effective strategies to manage their digital footprint.

These lessons were integrated with the middle school health curriculum and were actually taught during these class periods. The administration designed it this way so representatives from iKeepSafe could model the lessons for our teachers. It is a priority in our district to prevent digital mischief.

Evening Meeting with parents covered the following information:
- Detailed information on their "be a pro" model which specifically covered balance, ethical use, privacy, reputation and relationships, and online security.
- Free home filtering and security options.

- Conversational topics to address with their students regarding technology.

Fiscal Savings / Budget Update

When we originally wrote the grant, the devices were $404. Later we were able to find the devices for $379. A similar price change happened with the keyboards. The original quote for the keyboards was $95.98 each. After spending additional time researching what best fit our needs, we found a product that was better for our needs at a cost of $65 per keyboard.

Next Steps/Project Revisions

1. Provide additional effective uses for devices with more advanced professional development since teachers now have a solid understanding of utilization.

2. Analyze which applications are working well and which can be removed.

3. Revisit configuration restrictions. Analyze which enabled figures are distracting students and which disabled features could be useful in the classroom setting.

4. Remaining grant funds and matching district funds have help to equip an additional school building (West Side High School) in identical fashion for the 2014-2015 year.

5. Implementing Instructure Canvas learning management system as a method to manage digital instruction and assessment in a 1:1 environment.

6. Adding the Microsoft Office 365 suite (including Word and Excel iPad apps) to all district devices in order to encourage teacher adoption.